



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,372	02/06/2006	Hiroshi Yahata	2005_1602A	7252
52349 7590 03/22/2007 WENDEROTH, LIND & PONACK L.L.P. 2033 K. STREET, NW SUITE 800 WASHINGTON, DC 20006			EXAMINER FINDLEY, CHRISTOPHER G	
			ART UNIT	PAPER NUMBER
			2621	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/22/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/552,372

Applicant(s)

YAHATA ET AL.

Examiner

Christopher Findley

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 2-6, 8-12 and 14-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 7, and 13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Continuation Sheet.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :10/07/2005, 2/06/2006, 3/28/2006, 10/24/2006.

DETAILED ACTION

1. It is noted that claims 2-6, 8-12, and 14-18 have been cancelled by the applicant via Preliminary Amendment on 2/06/2006.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. **Claims 1, 7, and 13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

Independent claim 1 recites "a recording medium for storing system stream" and claims 7 and 13 recite "recording the system stream to a recording medium," which fails to meet the statutory requirement set forth in the Interim Guidelines, Annex IV (a). The video information has to be embodied in a computer-readable medium. Claims 1, 7, and 13 fail to recite this aspect. Claim 1 should read, "a computer readable medium for storing system stream." Claims 7 and 13 should read, "storing the system stream to a computer readable medium." For the purposes of prior art analysis, claims 1, 7, and 13 will be interpreted as relating to computer readable media containing video information.

ANNEX IV

***(a) Functional Descriptive Material: "Data Structures" Representing
Descriptive Material Per Se or Computer Programs Representing
Computer Listings Per Se***

Art Unit: 2621

Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. **Claims 1, 7, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohiro et al. (US 20030170008 A1) in view of Yasuda et al. (US 5949792 A).**

Re claim 1, Ohiro discloses a recording medium (paragraph [0050]) for storing system stream including video elementary stream generated by encoding video information and audio elementary stream generated by encoding audio information with the video elementary stream and the audio elementary stream being multiplexed (one of ordinary skill in the art at the time of the invention would have found it obvious that the

Art Unit: 2621

broadcasting signals received by the analog broadcasting reception unit 101 and the digital broadcasting reception unit 104, in Fig. 1, would be comprised of both video and audio data multiplexed for broadcast transmission), and the system stream is allowed to have a first format (TS) and a second format (PS) (paragraph [0050]), the first format is allowed to have a constrained format used for converting the system stream from the first format (TS) to the second format (PS) (paragraph [0050]).

Ohiro does not specifically disclose a presentation order of the video information including continuous complete data blocks starts at a top field and ends at a bottom field, the continuous complete data blocks are included in continuous reference presentation time for video information and audio information, and the continuous reference presentation time includes at least one data block. However, Yasuda discloses that each packet of video data contains a presentation time stamp (PTS) in the packet header (column 2, lines 30-37), which represents a time at which the data is displayed. This time stamp ensures that packets of sequential video data are displayed continuously. Furthermore, Yasuda discloses a top field first flag (column 7, lines 12-35), which enables the top field to be displayed first, and, consequently, the bottom field last.

Since Yasuda relates to MPEG 2 program and transport stream packets (column 2, line 61 through column 3, line 2), and Ohiro relates to switching between MPEG 2 program and transport stream formats for recording onto a computer readable medium, one of ordinary skill in the art at the time of the invention would have found it obvious to combine their teachings in order to maximize storage efficiency.

Re claim 7, Ohiro discloses an information recording apparatus (paragraph [0008]) and recording the system stream to a recording medium, the system stream being allowed to have a first format (TS) and a second format (PS) (Fig. 1; paragraphs [0008], [0024], [0026], and [0050]), the information recording apparatus comprising::, wherein the first format (TS) is allowed to have a constrained format used for converting the system stream from the first format (TS) to the second format (PS) (paragraphs [0051] and [0057]).

Ohiro does not specifically state that the system is for encoding video information and audio information to system stream. However, Yasuda discloses an apparatus for encoding a digital signal (column 5, lines 17-19). Yasuda further discloses an encoding section operable to encode video information and audio information in a predetermined encoding manner according to the first format (TS) to generate video elementary stream and audio elementary stream (Figs. 2A and 2B; column 2, lines 61-67; column 5, lines 46-64). Furthermore, Yasuda discloses an encoding section operable to perform system-encoding by multiplexing the video elementary stream and the audio elementary stream to generate the system stream according to the first format (TS) (column 7, lines 12-30) and a control section operable to control the encoding section (column 5, lines 54-57; the scheduler controls the packetizing of the data stream). Finally, Yasuda also discloses a presentation order of the video information including continuous complete data block starts at a top field and ends at a bottom field, the continuous complete data blocks are included in continuous reference presentation time for video information and

audio information, and the continuous reference presentation time includes at least one data block (column 7, lines 12-35).

Since Yasuda relates to MPEG 2 program and transport stream packets (column 2, line 61 through column 3, line 2), and Ohiro relates to switching between MPEG 2 program and transport stream formats for recording onto a computer readable medium, one of ordinary skill in the art at the time of the invention would have found it obvious to combine their teachings in order to maximize storage efficiency.

Re claim 13, Ohiro discloses an information recording method (paragraph [0023]) and recording the system stream to a recording medium (paragraph [0050]), the system stream being allowed to have a first format (TS) and a second format (PS) (paragraph [0050]), the first format (TS) is allowed to have a constrained format used for converting the system stream from the first format (TS) to the second format (PS) (Fig. 1; paragraph [0050]).

Ohiro does not specifically disclose encoding video information and audio information to system stream. However, Yasuda does disclose encoding video information and audio information to system stream (column 5, lines 17-19), wherein the method includes encoding video information and audio information in a predetermined encoding manner according to the first format (TS) to generate video elementary stream and audio elementary stream (column 7, lines 6-19) and performing system-encoding by multiplexing the video elementary stream and the audio elementary stream to generate the system stream according to the first format (TS) (column 7, lines 12-19) and a presentation order of the video information including continuous complete data

Art Unit: 2621

blocks starts at a top field and ends at a bottom field, the continuous complete data blocks are included in continuous reference presentation time for video information and audio information, and the continuous reference presentation time includes at least one data block (column 7, lines 12-35).

Since Yasuda relates to MPEG 2 program and transport stream packets (column 2, line 61 through column 3, line 2), and Ohiro relates to switching between MPEG 2 program and transport stream formats for recording onto a computer readable medium, one of ordinary skill in the art at the time of the invention would have found it obvious to combine their teachings in order to maximize storage efficiency.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

a. Information recording medium, and apparatus and method for recording information on information recording medium

Yahata et al. (US 20040240856 A1)

b. Packet multiplexing system

Sanami (US 6014368 A)

c. Information recording medium, apparatus and method for recording or reproducing data thereof

Okada et al. (US 6266483 B1)

d. Method and apparatus for converting data streams

Morris (US 20010009548 A1)

Art Unit: 2621

- e. Data decoding system and method, transfer device and method, and receiving device and method

Yanagihara et al. (US 6211800 B1)

- f. Data stream converting apparatus

Tozaki et al. (US 6567409 B1)

- g. Transport stream to program stream conversion

Gendel (US 6868125 B2)

Contact

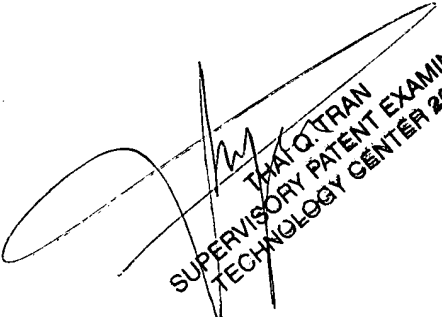
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Findley whose telephone number is (571) 270-1199. The examiner can normally be reached on Monday-Friday 7:30am-5pm, Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher Findley/


THAO Q. TRAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600